



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,036	10/14/2003	Chad A. Banter	WC/481	4985

7590 09/29/2004
W. L. Gore & Associates, Inc.
551 Paper Mill Road
P. O. Box 9206
Newark, DE 19714-9206

EXAMINER

SAN MARTIN, EDGARDO

ART UNIT	PAPER NUMBER
----------	--------------

2837

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,036

Applicant(s)

BANTER ET AL.

Examiner

Edgardo San Martin

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10 and 21 is/are allowed.
- 6) ☒ Claim(s) 1,4-9,11,14-20 and 22-25 is/are rejected.
- 7) ☒ Claim(s) 2,3,12 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/20/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The Non-Patent Literature concerning the reference of ASTM E 1050-90 cited in the filed Information Disclosure Statement has not been considered because no copy of such reference was included.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4 – 9, 11, 14 – 20 and 22 – 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moriarty (US 4,071,040) in view of Witte (US 4,844,778).

With respect to claim 1, 11 and 22, Moriarty teaches an apparatus comprising an acoustic transducer; a housing having at least one aperture, the housing at least partially enclosing the acoustic transducer; a protective acoustic cover assembly disposed proximate the aperture between the acoustic transducer and the housing, and a treatment on one or more surfaces of the protective acoustic cover (Figs.2 and 3; Col.1, Lines 34 – 57 and Col.2, Lines 3 – 59). Furthermore, Moriarty teaches wherein the protective acoustic cover could be a membrane as those used for filtering in biological laboratory work. However, Moriarty fails to disclose wherein the protective acoustic cover assembly comprising a metal foil with perforations.

Nevertheless, Witte teaches a membrane used for filtering in biological laboratory work (Col.1, Lines 31 – 39) comprising a metal foil with perforations (Fig1a; Col.1, Lines 40 – 48, Col.2, Lines 3 – 18 and Col.5, Lines 25 – 33).

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to employ the Witte metal foil as the Moriarty membrane because the metal foil would provide a stronger and durable membrane that would withstand different environments effects that could damage a membrane of any other non-metallic material.

With respect to claims 4, 14 and 25, Moriarty teaches wherein the protective acoustic cover assembly has an instantaneous water entry pressure value of greater than about 11 cm (Col.2, Lines 24 – 27).

With respect to claims 5, 15 and 24, Witte teaches wherein the perforations have an average maximum pore size of less than about 150 micrometers (Col.3, Table).

With respect to claims 6, 7, 16 and 17, Witte teaches wherein the treatment is a hydrophobic or oleophobic treatment (Col.7, Lines 24 – 26). In addition, the applicant admitted on the Background of the Invention of the current application, that hydrophobic and oleophobic treatments are well known in the art.

With respect to claims 8 and 18, the applicant admitted on the Background of the Invention of the current application, that employing adhesive as mounting system is well known in the art.

With respect to claims 9, 19 and 23, Witte teaches wherein the metal foil is nickel (Col.7, Line 23).

With respect to claim 20, the applicant admitted on the Background of the Invention of the current application, that providing a protective acoustic cover assembly being integral with the housing is well known in the art. In addition, it has been held that the term "integral" is sufficiently broad to embrace constructions united by such means as fastening and welding. In re Hotte, 177 USPQ 326, 328 (CCPA 1973).

Allowable Subject Matter

3. Claims 2, 3, 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claims 10 and 21 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

- The references of the Prior Art of record fail to teach, or suggest any obvious combination of the limitations discussed above, and further comprising the limitations of wherein the protective acoustic cover assembly has an average specific acoustic resistance of less than about 11 Rayls MKS from 250-300 Hz or an average specific acoustic reactance magnitude of less than about 1 Rayls MKS from 250-300 Hz.

Conclusion

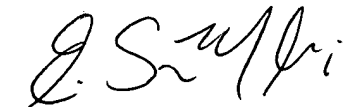
5. The attached hereto PTO Form 892 lists prior art made of record that the Examiner considered it pertinent to applicant's disclosure.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edgardo San Martin whose telephone number is (571) 272-2074. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571) 272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Edgardo San Martín
Patent Examiner
Art Unit 2837
Class 181
September 27, 2004